



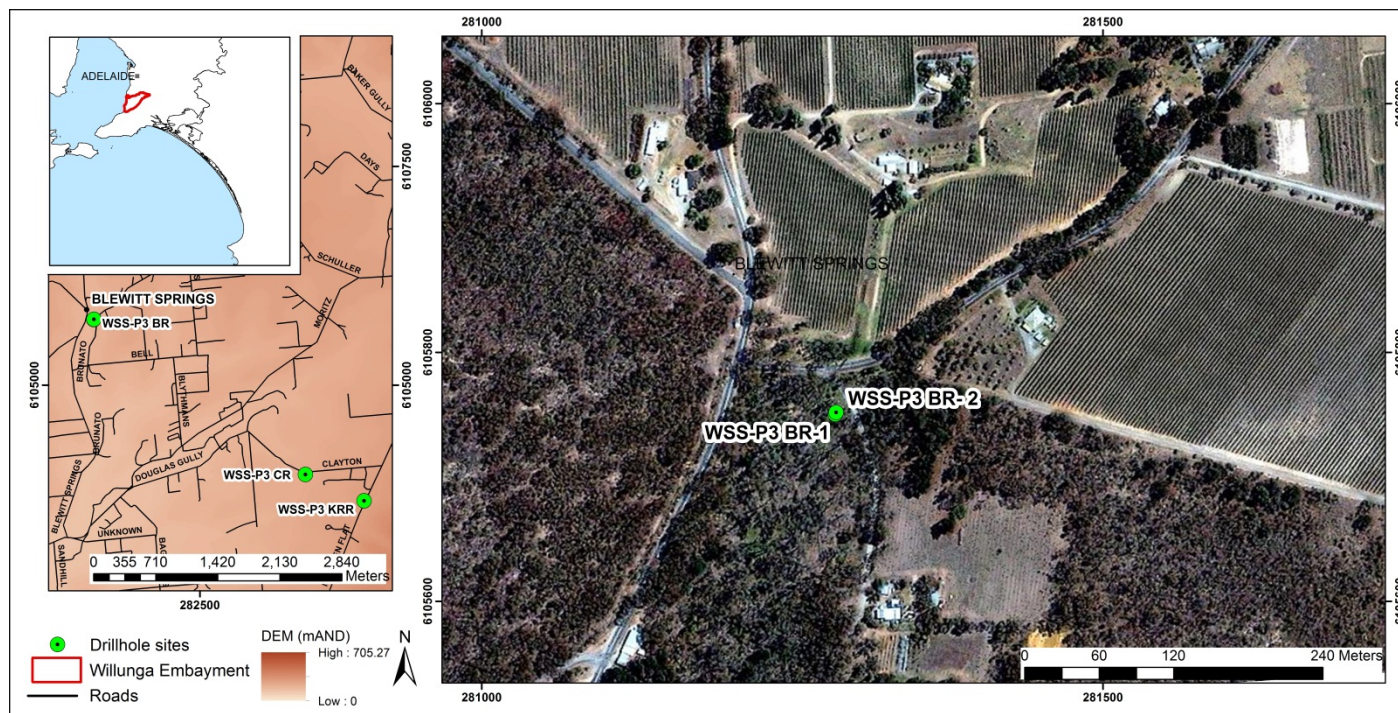
An Australian Government Initiative

Groundwater Education Investment Fund Project

Borehole Infrastructure Report

Borehole Type		Piezometer Monitoring Bore	Location	Willunga Super Science Site
Unique Well ID		WSS-P3BR-1	Installed By	Town & Country Drilling services
Completion Date		01/11/2012	Depth Installed	2.57 mBGS
Drilled By		Town & Country Drilling services	Depth Drilled	3 mBGS
Monument Type		Square galvanised standpipe	Drilled Diameter/Method	150 mm/Auger
Monument Diameter/Width		100 mm	Screen Depth	1.57-2.57 mBGS
T.O.M. offset from G.L. (Top of Open Monument)		0.625 m	Screen Size/Aperture/Type	50 mm/slotted/PVC 18
PVC Casing to T.O.M offset		+0.028 m	Level of Bentonite	1-1.27 mBGS
Ground Elevation (mAHD)		132.907	Casing Size/Type	50 mm/PVC 18
GPS Easting	(MGA-94 Zone 54)	281285	SWL after Development	1.33 mTOC
GPS Northing		6105750	Development Details	Air vacuum/submersible pump

Project Comments: WSS-P3BR-1 is a single piezometer monitoring bore, located off Brookmans Road, Blewitt Springs.



Map of Willunga Super Science Project Shallow Monitoring Well Sites

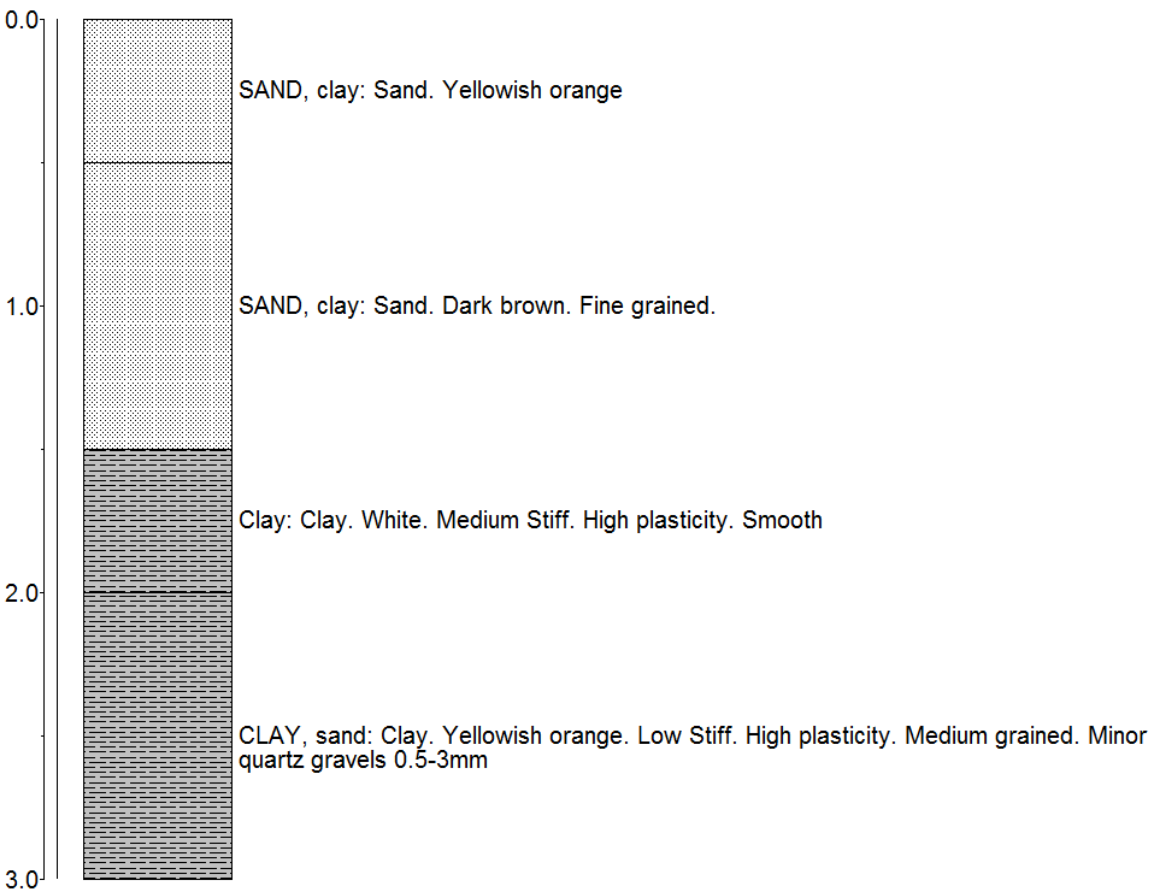
Note* Appendix includes Lithology and Well Completion Logs, Geophysical Logs, Hydraulic Test and Chemical Analysis.

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Lithology

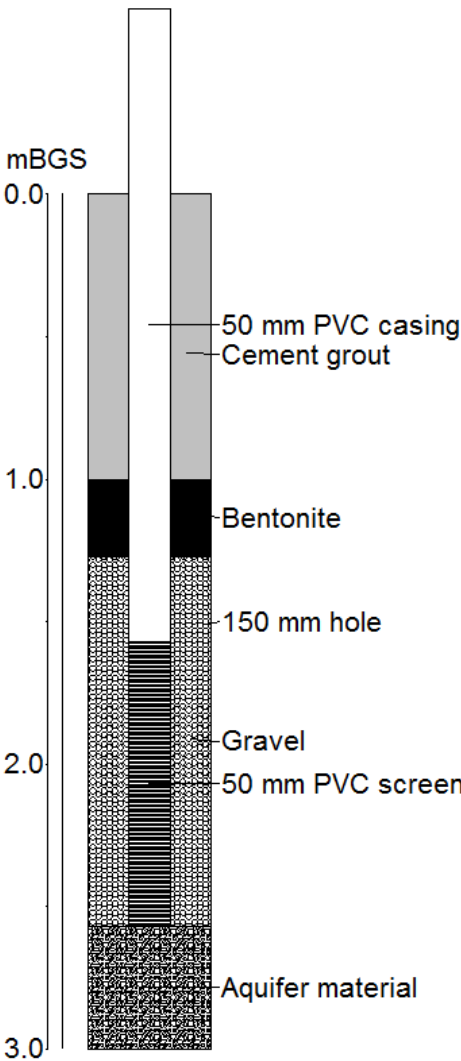
WSS-P3BR-1

mBGS



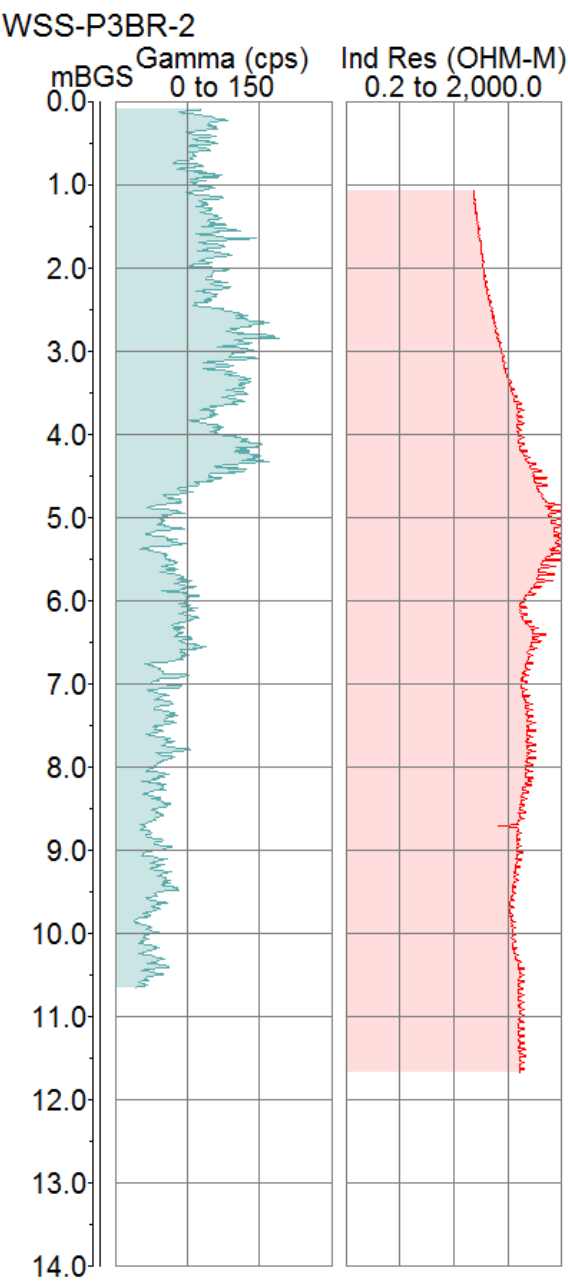
Well Completion Log

WSS-P3BR-1



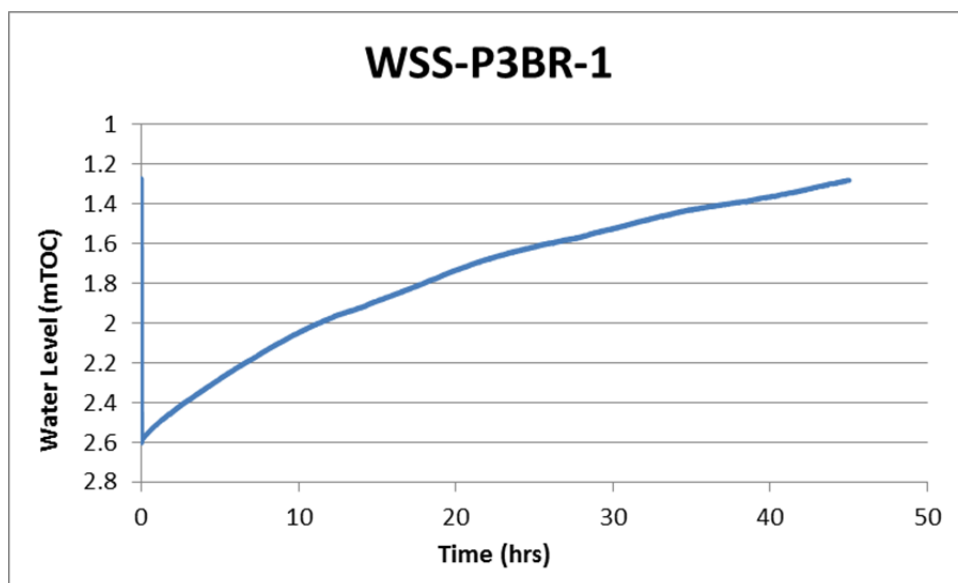
Geophysical Logs

The portable Mount Sopris logging system was used to collect geophysical data from bore WSS-P3BR-2, adjacent to and deeper than WSS-P3BR-1. The 2PGS probe was used to collect natural gamma measurements, and the 2PIA probe was used to measure conductivity/induced resistivity.



Slug Test

A slug test was performed on piezometer WSS-P3BR-1 on 7/11/2012 with a water level logger and a submersible pump. The standing water in the well was pumped out in under 30 seconds. The results of the test are presented below. The report author may be contacted for the full data set.



Chemical Analysis

The results of major ion chemistry on WSS-P3BR-1 are presented below, along with chemical parameters measured in the field.

Well ID	Date Sampled	SWL mTOC	Field Parameters				Laboratory Analyses @ CSIRO ASU											
			pH	EC	Temp	Alkalinity	pH	E.C.	Total Alkalinity	F ⁻	Cl ⁻	Br ⁻	NO ₃ ⁻	SO ₄ ⁼	Ca	K	Mg	
				μS/cm	°C	meq/L		μS/cm	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
WSS-P3BR-1	23/11/2012	1.33	6.37	3046	18.5	3.1	7.2	3286	3.5	0.2	930	2.5	0.2	115	129	5.31	77.1	
							Na	S	Al	As	B	Cd	Co	Cr	Cu	Fe	Mn	
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
							468	36.8	<0.05	<0.05	0.14	<0.05	<0.05	<0.05	<0.05	0.45	0.34	
							Mo	Ni	P	Pb	Sb	Se	Si	Sr	Zn			
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
							<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	15.2	1.07	0.068			